



PATENT ABSTRACTS OF JAPAN

(11) Publication number. **2000011443 A**

(43) Date of publication of application: 14.01.00

(51) Int. Cl. G11B 7/135
G02B 5/04
G02B 5/32

(21) Application number: 10359706

(22) Date of filing: 17.12.98

(30) Priority: 21.04.98 JP 10110970

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**(54) OPTICAL MODULE DEVICE, COMBINED PRISM
USING IT, AND FORMING METHOD THEREOF**

without laying it on its side and the optical head can be made thinner.

(57) Abstract

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PROBLEM TO BE SOLVED: To provide an optical module device permitting to make an optical head device thinner.

SOLUTION: To input/output light from the side of the case, this optical module is provided with a half-wave plate 24 converting TE-polarized output light emitted from a light emitting element 20 into TM-polarized light, a polarized light beam splitter 22 transmitting the TM-polarized output light and reflecting the returning light of TM-polarized light toward a light receiving element 16, a polarizing hologram element 26 transmitting the output light as 0-order light and diffracting the returning light as primary light, and a quarter-wave plate 28 outputting TM-polarized output light by converting it into circular-polarized light and also converting the returning circular-polarized light from outside into TE-polarized light. As a result, it is possible to mount the optical module on the optical head

